

## AIR EXITS THROUGH SIDE WALL DUCTS

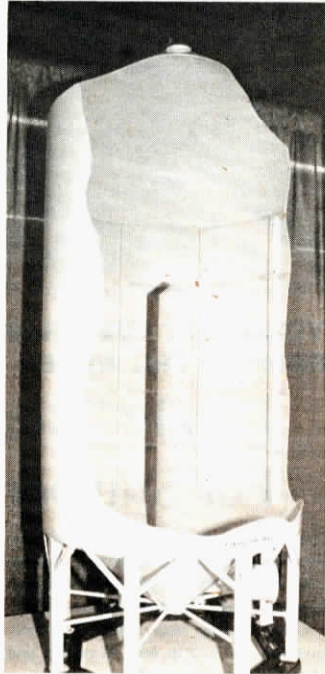
# New "Natural Air" Drying System

A new "natural air" grain drying system for hopper bottom bins, featuring unique side-wall ducts for exhaust air, dries grain 30% faster than natural air drying in bins with a perforated floor, according to Univision Industries Ltd., Biggar, Saskatchewan.

"Other companies make hopper bottom bins with central air flow injectors, but they exhaust air up through the top of the bin, rather than through bin sidewalls, as we do," says Ken Esler, president. "We've found that air passes horizontally through grain with 30% less resistance than it does vertically. That's because grain in a bin lays somewhat like cordwood, hindering upward air flow. It's a special problem in a hopper bottom bin, which is taller and narrower than a conventional bin. Another benefit of the sidewall ducting system is that air passes only a short distance before leaving the bin. For example, in our 16-ft. dia. bin, air passes through only 6 1/2 ft. of grain. This further increases drying efficiency. The result is that farmers need fewer hopper bins to dry their grain before they move it to storage bins."

Air flows up the central injector, then travels horizontally through grain to a series of horizontal "exhaust rings", spaced 5 ft. apart along the inside of the bin. The "exhaust rings" are formed by 4 1/2-in. wide metal deflectors set at a 45° angle. Air follows the open space underneath the "exhaust rings" and enters 4 by 8-in. vertical exhaust tubes through evenly spaced exit ports. "As air passes through the grain, it becomes moist and heavy, drops down through the exhaust tubes and exits just behind each bin leg," explains Esler. "Exhaust air not collected by the horizontal exhaust rings rises vertically and is exhausted through the roof vent."

According to Esler, the new natural air drying bin can also be used to cool and dry



Air comes up through central air flow injector and travels horizontally to ducts in bin sidewalls rather than up through the top of the bin.

hot wet corn coming out of a dryer. And, because the bin is epoxy coated, it can also be used for fertilizer storage.

The aeration system, which includes central air flow injector and ducting and venting, sells for \$1,250 installed.

For more information, contact: FARM SHOW Followup, Univision Industries Ltd., P.O. Box 879, Biggar, Saskatchewan, Canada SOK OMO (ph 800 667-3065).

## LOADS BIG ROUND BALES IN, OUT OF STORAGE AT PUSH OF BUTTON

# "Rail Mover" For Big Round Bales

Latest new way to move big round bales in or out of storage is the "rail mover" system from Dynavent.

Individual bales are lifted by a giant claw, then self-propelled along overhead rails for stacking one on top of the other to fill every nook and cranny in the storage shed. Individual bales can be loaded out by rail for feeding—either alongside the shed, or you can build an outside overhead track extension to "railroad" bales from storage to the feedlot.

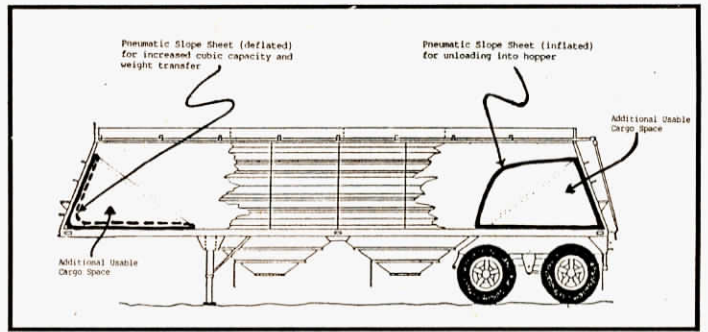
The bale-grabbing claw and moving mechanism that rides the rails requires only 5 ft. of headroom, which means you can stack bales one on top of the other almost to the ceiling.

A 2 1/2 hp electric motor lifts and lowers

bales at the rate of 32 ft./min. A track switching device allows many different stacking patterns, depending on the design and configuration of the building. A hand held push button control directs the lifting, lowering, forward and backward movement of the bale. The claw opens automatically when the bale hits the floor, or comes to rest on top another bale and there no longer is any weight on the claw.

The basic mechanism (the claw and the motor and winch that lifts and lowers it, and the motor and drive for moving bales along the overhead rail) sells for right at \$5,995.

For more information, contact: FARM SHOW Followup, Dynavent, 1825 Power, Drummondville, Que., Canada J2C 5X4 (ph 819 474-5500).



## INFLATABLE AIR BAG ELIMINATES SLOPED TRAILER SIDES

# "Air Bag" Unloader For Semi Trailers

A new inflatable "air bag" unloader, which eliminates the need for sloped sides inside hopper-bottom semi trailers, lets you boost capacity to maximum allowable axle loading limits, says Univision Industries Ltd., Biggar, Saskatchewan.

The "air bag" unloader is inflated by air pressure from an independent air tank which operates off the truck's air compressor. The inflated bag forces grain to slide down into the hoppers. The "air bag" unloader is deflated while hauling to increase cargo space. Univision offers the "air bag" unloader as an option for the trailers it manufactures.

"The problem with steel slope sides is that they take up lots of room in the front and back of the trailer. As a result, there's very little weight over the fifth wheel and steering axle, says David Voth, factory representative. "In fact, with a lightweight commodity such as barley, even with a full trailer you often can't reach your maximum allowable gross weight over the front axles. The conventional solution is to move the king-

pin back, putting more of the trailer's weight over the fifth wheel and steering axle. But repositioning the kingpin can interfere with dolly legs and hoppers. The air bag distributes weight more evenly, and lets you get more grain in the trailer."

The bag is secured to the floor and sides of the trailer. According to Voth, the "air bag" improves the weight transfer characteristics of the trailer. "Deflating the bag completely lets you move commodity to both ends of the trailer. Or by inflating only partially, you can easily transfer grain back and forth to adjust the amount of weight as necessary."

The company currently markets the air bag unloader as an option on its new grain trailers. It plans to offer a retrofit kit for other trailer brands and models. Sells for \$1,195.

For more information, contact: FARM SHOW Followup, Univision Industries Ltd., P.O. Box 879, Biggar, Saskatchewan, Canada SOK OMO (ph 306 948-3371).



A giant claw picks up bale and an electric motor "self-propels" bale along track.